Evaluation of the efficacy of aqueous extracts of Albizia anthelmintica and Maerua edulis against the nematode Heligmosomoides polygyrus infections in mice.

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Abstract

Anthelmintic activity of the water extracts of Albizia anthelmintica bark and Maerua edulis root was evaluated in mice that had been experimentally infected with the intestinal nematode Heligmosomoides polygyrus. The mice were randomly allocated into six treatment groups and one control group. Groups 1, 2 and 3 were given an oral dose of water extracts of A. anthelmintica at 5gm1 kg, 10g/ml kg and 20g/m/kg bodyweight respectively in a divided dose on day 17 post-infection. Groups 4, 5 and 6 were given water extracts of M edulis at a dosage of 5g/ml kg, 10g/ml kg and 20g/ml kg bodyweight respectively in a divided dose. Group 7 was the control and was concurrently given a double oral dose of 0.2ml of physiological saline each. Mortality of some mice was observed in four groups after treatment. Five days after treatment, faecal worm egg count reduction was determined. The results showed a percentage faecal H polygyrus egg count reduction of 72%, 69%, 50%, 42% in groups 2, 6, 3, and 1 respectively. Seven days after treatment there was a reduction in worm counts at postmortem of 68%, 36%, 20%, 19%, 16% and 14% in groups 1, 5, 2, 3, 6 and 4 respectively compared to untreated controls. These results indicate that the plant extracts had anthelmintic activity and support the use of these plants as anthelmintics.